

WHAT IS CLAIMED IS:

1. A composition comprising:

(a) at least one silicone/acrylate copolymer; and

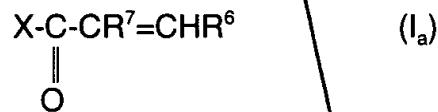
5 (b) at least one nonionic polymer comprising at least one vinylactam unit, wherein
said at least one silicone/acrylate copolymer is derived from radical-mediated
polymerization of:

(i) at least one ethylenically unsaturated monomer (a); and

(ii) at least one silicone derivative (b) comprising at least one oxyalkylene group.

10 2. A composition according to Claim 1 further comprising a cosmetically acceptable
medium.

15 3. A composition according to Claim 1, wherein said at least one ethylenically
unsaturated monomer (a) is chosen from at least one monomer of formula (I_a):



20 in which:

- X is chosen from OH, OM, OR⁸, NH₂, NHR⁸ and N(R⁸)₂, wherein:

- R⁸, which may be identical or different, are each chosen from hydrogen
atoms, linear and branched C₁ to C₄₀ alkyl groups, optionally substituted with
at least one group chosen from alkoxy groups, amino groups and carboxyl
groups, monohydroxylated linear and branched C₁ to C₄₀ alkyl groups,
optionally substituted with at least one group chosen from alkoxy groups,

amino groups and carboxyl groups, polyhydroxylated linear and branched C₁ to C₄₀ alkyl groups, optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups, and hydroxylated polyethers; and

5 - M is chosen from Na⁺, K⁺, Mg⁺⁺, NH⁴⁺, an alkylammonium group, a dialkylammonium group, a trialkylammonium group and a tetraalkylammonium group;

10 - R⁷ and R⁶, which may be identical or different, are each chosen from hydrogen atoms, linear and branched C₁ to C₈ alkyl groups, methoxy groups, ethoxy groups, 2-hydroxyethoxy groups, 2-methoxyethoxy groups, 2-ethoxyethyl groups, CN groups, COOH groups and COOM groups, wherein M is defined as above.

15 4. A composition according to Claim 3, wherein said linear and branched C₁ to C₄₀ alkyl groups optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups are each chosen from N,N-dimethylaminoethyl groups, 2-methoxyethyl groups, 2-ethoxyethyl groups, methoxypropyl groups and ethoxypropyl groups.

20 5. A composition according to Claim 3, wherein said monohydroxylated linear and branched C₁ to C₄₀ alkyl groups optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups are each chosen from 2-hydroxyethyl groups and hydroxypropyl groups.

25 6. A composition according to Claim 3, wherein said at least one monomer of formula (la) is chosen from acrylic acid, the salts of acrylic acid, esters and amides.

7. A composition according to Claim 3, wherein said at least one monomer of formula (la) is chosen from methacrylic acid, ethacrylic acid and 3-cyanoacrylic acid.

8. A composition according to Claim 3, wherein said at least one monomer of formula (la) chosen from esters is chosen from derivatives of linear C₁ to C₄₀ alkyls, derivatives of branched C₃ to C₄₀ alkyls, derivatives of C₃ to C₄₀ carboxylic alcohols, derivatives of polyfunctional alcohols comprising 2 to 8 hydroxyl groups, derivatives of alcohol ethers and derivatives of polyalkylene glycols.

9. A composition according to Claim 8, wherein said polyfunctional alcohols comprising 2 to 8 hydroxyl groups are chosen from ethylene glycol, hexylene glycol, glycerol and 1,2,6-hexanetriol.

10. A composition according to Claim 8, wherein said alcohol ethers are chosen from methoxymethanol and ethoxyethanol.

11. A composition according to Claim 3, wherein said at least one monomer of formula (la) is chosen from N,N-dialkylaminoalkyl acrylates, N,N-dialkylaminoalkyl methacrylates, N-dialkylaminoalkyl acrylamides and N-dialkylaminoalkyl methacrylamides, wherein the amide group may optionally be unsubstituted, N-alkyl-monosubstituted, N-alkylamino-monosubstituted or N,N-dialkylamino-disubstituted, and wherein the alkyl moieties are chosen from linear C₁ to C₄₀ alkyl moieties and branched C₃ to C₄₀ alkyl moieties.

12. A composition according to Claim 1, wherein said at least one ethylenically unsaturated monomer (a) is chosen from C₁ to C₄₀ vinyl esters, C₁ to C₄₀ allyl esters, linear

C₃ to C₄₀ carboxylic acids, branched C₃ to C₄₀ carboxylic acids, vinyl halides, allyl halides, vinyl lactams, heterocyclic compounds substituted with at least one group chosen from vinyl groups and allyl groups, N-vinylimidazoles, diallylamines, vinylidene chloride, carbon-based unsaturated compounds, acrylic acid derivatives quaternized with epichlorohydrin and methacrylic acid derivatives quaternized with epichlorohydrin.

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1. *cont*

13. A composition according to Claim 12, wherein said vinyl lactams are chosen from vinylpyrrolidone and vinylcaprolactam.

14. A composition according to Claim 12, wherein said heterocyclic compounds substituted with at least one group chosen from vinyl groups and allyl groups are chosen from vinylpyridine, vinyloxazoline and allylpyridine.

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15. A composition according to Claim 12, wherein said carbon-based unsaturated compounds are chosen from styrene and isoprene.

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16. A composition according to Claim 1, wherein said at least one ethylenically unsaturated monomer (a) is chosen from N-vinylimidazoles, diallylamines, vinylidene chloride, carbon-based unsaturated compounds, acrylic acid derivatives quaternized with epichlorohydrin and methacrylic acid derivatives quaternized with epichlorohydrin.

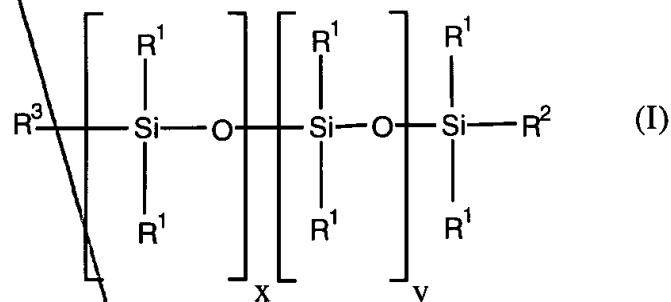
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17. A composition according to Claim 1, wherein said at least one ethylenically unsaturated monomers (a) is chosen from acrylic acid, methacrylic acid, ethacrylic acid, methyl acrylate, ethyl acrylate, propyl acrylate, n-butyl acrylate, isobutyl acrylate, t-butyl

acrylate, 2-ethylhexyl acrylate, decyl acrylate, methyl methacrylate, ethyl methacrylate, propyl methacrylate, n-butyl methacrylate, isobutyl methacrylate, t-butyl methacrylate, 2-ethylhexyl methacrylate, decyl methacrylate, methyl ethacrylate, ethyl ethacrylate, propyl ethacrylate, n-butyl ethacrylate, isobutyl ethacrylate, t-butyl ethacrylate, 2-ethylhexyl ethacrylate, decyl ethacrylate, 2,3-hydroxypropyl acrylate, 2,3-dihydroxypropyl methacrylate, 2-dihydroxyethyl acrylate, hydroxypropyl acrylate, 2-hydroxyethyl methacrylate, 2-hydroxyethyl ethacrylate, 2-methoxyethyl acrylate, 2-ethoxyethyl methacrylate, 2-ethoxyethyl ethacrylate, hydroxypropyl methacrylate, glyceryl monoacrylate, glyceryl monomethacrylate, polyalkylene glycol (meth)acrylates, unsaturated sulphonic acids, acrylamide, methacrylamide, ethacrylamide, N,N-dimethylacrylamide, N-ethylacrylamide, N-ethylmethacrylamide, 1-vinyl-imidazole, N,N-dimethylaminoethyl (meth)acrylate, maleic acid, fumaric acid, maleic anhydride, monoesters of maleic anhydride, crotonic acid, itaconic acid, vinyl ethers, vinylformamide, vinylamine, vinylpyridine, vinylimidazole, vinylfuran, styrene, styryl sulphonate and allyl alcohol.

18. A composition according to Claim 1, wherein said at least one ethylenically unsaturated monomer (a) further comprises at least one entity chosen from silicon atoms, fluorine atoms and thio groups.

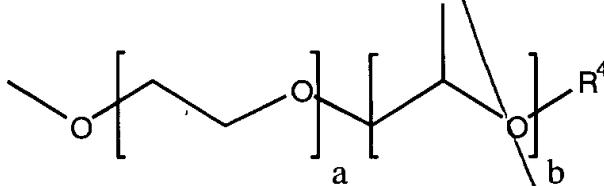
19. A composition according to Claim 1, wherein said at least one silicone derivative (b) is chosen from at least one derivative of formula I:



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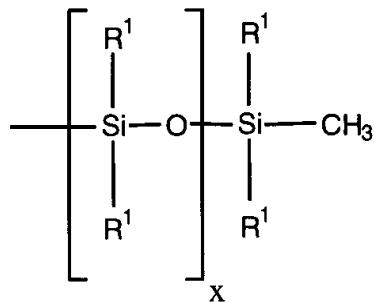
in which:

- x and y, which may be identical or different, are each chosen from integers wherein said integers are chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000;
- R² and R³, which may be identical or different, are each chosen from CH₃ and groups of formula:



- in which:

- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50;
- R⁴ is chosen from hydrogen, CH₃, groups of formula:

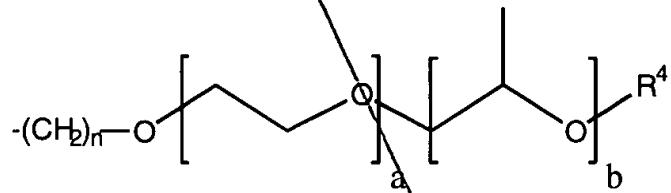


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in which:

- x is an integer chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000; and
- R¹, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:

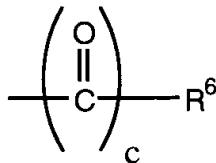
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in which:

- n is an integer ranging from 1 to 6;
- a and b , which may be identical or different, are each chosen from integers ranging from 0 to 50; and
- R^4 is defined as above; and

groups of formula:

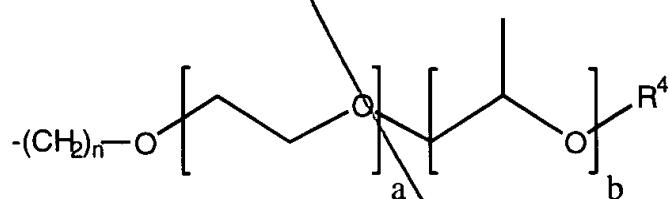


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in which:

- R⁶ is chosen from a C₁ to C₄₀ group, optionally comprising at least one group chosen from amino groups, carboxyl groups and sulfonyl groups, and, if c is equal to zero, R₆ is chosen from an anion of an inorganic acid; and
- c is equal to 0 or 1; and

- R¹, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:



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in which:

20 - n is an integer ranging from 1 to 6;

- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and

- R⁴ is defined as above;

25 with the proviso that said at least one silicone derivative (b) comprises at least one oxyalkylene unit.

20. A composition according to Claim 19, wherein said R¹, which may be identical or different, are each chosen from methyl groups, ethyl groups, propyl groups, butyl groups, isobutyl groups, pentyl groups, isopentyl groups, hexyl groups, octyl groups, decyl groups, dodecyl groups, octadecyl groups, cycloaliphatic groups, aromatic groups and groups comprising both aromatic and aliphatic groups.

21. A composition according to Claim 20, wherein said cycloaliphatic groups are chosen from cyclohexyl groups.

22. A composition according to Claim 20, wherein said aromatic groups are chosen from phenyl groups and naphthyl groups.

23. A composition according to Claim 20, wherein said groups comprising both aromatic and aliphatic groups are chosen from benzyl groups, phenylethyl groups, tolyl groups and xylyl groups.

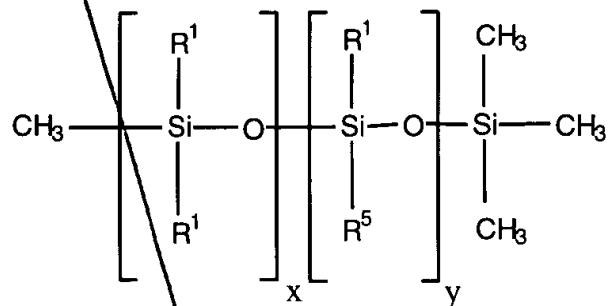
24. A composition according to Claim 19, wherein said R⁴ is chosen from groups of formula -(CO)_c-R⁶, wherein c is equal to 1 and R⁶ is chosen from a group comprising from 1 to 40 carbon atoms, optionally comprising at least one group chosen from NH₂ groups, COOH groups and SO₃H groups, wherein said group comprising from 1 to 40 carbon atoms is chosen from an alkyl group, a cycloalkyl group and an aryl group.

25. A composition according to Claim 19, wherein said R⁴ is chosen from groups of formula -(CO)_c-R⁶, wherein c is equal to zero and R⁶ is chosen from phosphates and

sulphates.

26. A composition according to Claim 1, wherein said at least one silicone derivative (b) is chosen from at least one derivative of formula:

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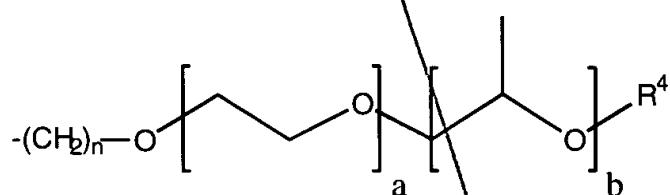
in which:

- x and y, which may be identical or different, are each chosen from integers wherein said integers are chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000;

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- R¹, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:

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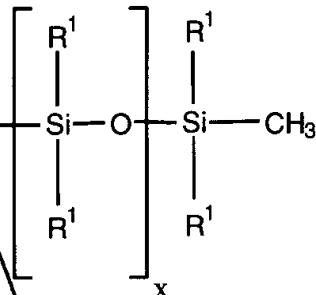
- in which:

- n is an integer ranging from 1 to 6;

- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and

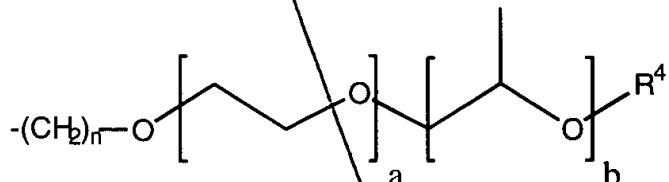
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- R⁴ is chosen from hydrogen, CH₃, groups of formula:



10 - x is an integer chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000; and

15 - R¹, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:



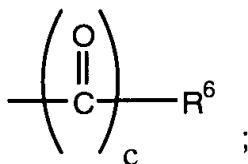
25 - n is an integer ranging from 1 to 6;

- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and

- R⁴ is defined as above; and

groups of formula:

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in which:

- R⁶ is chosen from a C₁ to C₄₀ group, optionally comprising at least one group chosen from amino groups, carboxyl groups and sulfonyl groups, and, if c is equal to zero, R₆ is chosen from an anion of an inorganic acid; and

- c is equal to 0 or 1; and

- R^5 , which may be identical or different, are each chosen from groups of formula:

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in which:

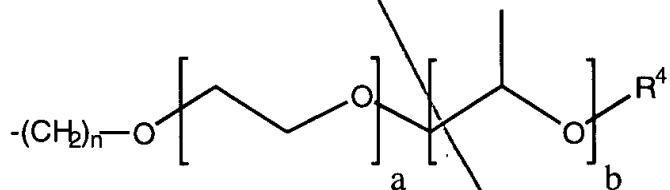
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- n is an integer ranging from 1 to 6;

- a and b , which may be identical or different, are each chosen from integers ranging from 0 to 50; and

- R4 is defined as above:

with the proviso that said at least one silicone derivative (b) comprises at least one
oxyalkylene unit.



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27. A composition according to Claim 1, wherein said at least one silicone derivative (b) is chosen from dimethicone copolyols and silicone surfactants.

5 28. A composition according to Claim 1, wherein said at least one silicone derivative (b) is present in a proportion ranging from 0.1% to 50% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

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10 29. A composition according to Claim 28, wherein said at least one silicone derivative (b) is present in a proportion ranging from 1% to 20% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

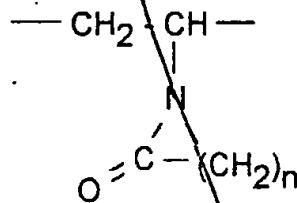
15 30. A composition according to Claim 1 wherein said at least one silicone/acrylate copolymer is chosen from water-soluble silicone/acrylate copolymers and silicone/acrylate copolymers having a dispersibility in water is such that, in a water/ethanol mixture dosed at 50/50 by volume, said copolymers are soluble in a proportion of greater than 0.1 g/l.

20 31. A composition according to Claim 30, wherein said silicone/acrylate copolymers have a dispersibility in water such that said copolymers are soluble in a proportion of greater than 0.2 g/l.

32. A composition according to Claim 1, wherein said at least one silicone/acrylate copolymer is present in a proportion ranging from 0.1% to 20% by weight relative to the total weight of said composition.

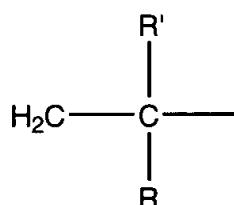
33. A composition according to Claim 32, wherein said at least one silicone/acrylate copolymer is present in a proportion ranging from 0.5% to 10% by weight relative to the total weight of said composition.

5 34. A composition according to Claim 1, wherein said at least one nonionic polymer comprising at least one vinyl lactam unit is chosen from at least one nonionic polymer comprising at least one unit of formula:



10 in which n is an integer chosen from 3, 4 and 5.

15 35. A composition according to Claim 1, wherein said at least one nonionic polymer comprising at least one vinyl lactam unit is chosen from at least one copolymer which further comprises at least one unit of formula:



in which:

- R is chosen from an acyloxy group wherein the alkoxy group may optionally be substituted with at least one group, optionally substituted with at least one alkyl group, wherein said at least one group is chosen from hydroxyl groups and aryl groups; and
- R' is chosen from a hydrogen atom and an alkyl group.

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36. A composition according to Claim 35, wherein said at least one group is chosen from phenyl groups.

37. A composition according to Claim 1, wherein said at least one non-ionic polymer comprising at least one vinyl lactam unit is chosen from polyvinylpyrrolidones, polyvinylcaprolactams, polyvinylpyrrolidone/vinyl acetate copolymers and polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers.

38. A composition according to Claim 1, wherein said at least one non-ionic polymer comprising at least one vinyl lactam unit has a number-average molecular mass greater than about 5000.

39. A composition according to Claim 38, wherein said number-average molecular mass ranges from about 10,000 to about 1,000,000.

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40. A composition according to Claim 38, wherein said number-average molecular mass ranges from about 10,000 to about 100,000.

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41. A composition according to Claim 1, wherein said at least one nonionic polymer comprising at least one vinyl lactam unit is present in a proportion ranging from 0.1% to

10% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

42. A composition according to Claim 41, wherein said at least one nonionic polymer comprising at least one vinylactam unit is present in a proportion ranging from 5 0.2% to 5% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

43. A composition according to Claim 2, wherein said at least one cosmetically acceptable medium is chosen from water and cosmetically acceptable solvents.

44. A composition according to Claim 43, wherein said cosmetically acceptable solvents are chosen from alcohols and mixtures comprising water and at least one solvent.

45. A composition according to Claim 44, wherein said at least one solvent is chosen from C₁-C₄ alcohols.

46. A composition according to Claim 45, wherein said C₁-C₄ alcohol is chosen from ethanol and isopropanol.

20 47. A composition according to Claim 46, wherein said C₁-C₄ alcohol is chosen from ethanol.

48. A composition according to Claim 1 further comprising at least one suitable additive chosen from anionic surfactants, cationic surfactants, nonionic surfactants, 25 amphoteric surfactants, fragrances, screening agents, preserving agents, proteins,

vitamins, polymers different from said at least one silicone/acrylate copolymer and different from said at least one nonionic polymer defined in Claim 1, plant oils, mineral oils and synthetic oils.

5 49. A composition according to Claim 1, wherein said composition is a cosmetic composition.

50. A process for holding or shaping the hairstyle, comprising applying to hair an effective amount of a composition comprising:

(a) at least one silicone/acrylate copolymer; and

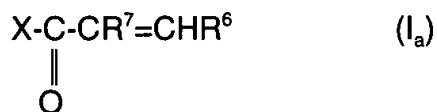
15 (b) at least one nonionic polymer comprising at least one vinylactam unit, wherein said at least one silicone/acrylate copolymer is derived from radical-mediated polymerization of:

(i) at least one ethylenically unsaturated monomer (a); and

16 (ii) at least one silicone derivative (b) comprising at least one oxyalkylene group.

51. A process according to Claim 50, wherein said composition further comprises a cosmetically acceptable medium.

20 52. A process according to Claim 50, wherein said at least one ethylenically unsaturated monomer (a) is chosen from at least one monomer of formula (I_a):



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in which:

- X is chosen from OH, OM, OR⁸, NH₂, NHR⁸ and N(R⁸)₂, wherein:

- R⁸, which may be identical or different, are each chosen from hydrogen atoms, linear and branched C₁ to C₄₀ alkyl groups, optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups, monohydroxylated linear and branched C₁ to C₄₀ alkyl groups, optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups, polyhydroxylated linear and branched C₁ to C₄₀ alkyl groups, optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups, and hydroxylated polyethers; and

- M is chosen from Na⁺, K⁺, Mg⁺⁺, NH⁴⁺, an alkylammonium group, a dialkylammonium group, a trialkylammonium group and a tetraalkylammonium group;

- R⁷ and R⁶, which may be identical or different, are each chosen from hydrogen atoms, linear and branched C₁ to C₈ alkyl groups, methoxy groups, ethoxy groups, 2-hydroxyethoxy groups, 2-methoxyethoxy groups, 2-ethoxyethyl groups, CN groups, COOH groups and COOM groups, wherein M is defined as above.

53. A process according to Claim 52, wherein said linear and branched C₁ to C₄₀ alkyl groups optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups are each chosen from N,N-dimethylaminoethyl groups, 2-methoxyethyl groups, 2-ethoxyethyl groups, methoxypropyl groups and ethoxypropyl groups.

25 54. A process according to Claim 52, wherein said monohydroxylated linear and

branched C₁ to C₄₀ alkyl groups optionally substituted with at least one group chosen from alkoxy groups, amino groups and carboxyl groups are each chosen from 2-hydroxyethyl groups and hydroxypropyl groups.

5 55. A process according to Claim 52, wherein said at least one monomer of formula (la) is chosen from acrylic acid, the salts of acrylic acid, esters and amides.

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10 56. A process according to Claim 52, wherein said at least one monomer of formula (la) is chosen from methacrylic acid, ethacrylic acid and 3-cyanoacrylic acid.

15 57. A process according to Claim 52, wherein said at least one monomer of formula (la) chosen from esters is chosen from derivatives of linear C₁ to C₄₀ alkyls, derivatives of branched C₃ to C₄₀ alkyls, derivatives of C₃ to C₄₀ carboxylic alcohols, derivatives of polyfunctional alcohols comprising 2 to 8 hydroxyl groups, derivatives of alcohol ethers and derivatives of polyalkylene glycols.

20 58. A process according to Claim 57, wherein said polyfunctional alcohols comprising 2 to 8 hydroxyl groups are chosen from ethylene glycol, hexylene glycol, glycerol and 1,2,6-hexanetriol.

25 59. A process according to Claim 57, wherein said alcohol ethers are chosen from methoxymethanol and ethoxyethanol.

60. A process according to Claim 52, wherein said at least one monomer of formula (la) is chosen from N,N-dialkylaminoalkyl acrylates, N,N-dialkylaminoalkyl methacrylates,

N-dialkylaminoalkyl acrylamides and N-dialkylaminoalkyl methacrylamides, wherein the amide group may optionally be unsubstituted, N-alkyl-monosubstituted, N-alkylamino-monosubstituted or N,N-dialkylamino-disubstituted, and wherein the alkyl moieties are chosen from linear C₁ to C₄₀ alkyl moieties and branched C₃ to C₄₀ alkyl moieties.

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61. A process according to Claim 50, wherein said at least one ethylenically unsaturated monomer (a) is chosen from C₁ to C₄₀ vinyl esters, C₁ to C₄₀ allyl esters, linear C₃ to C₄₀ carboxylic acids, branched C₃ to C₄₀ carboxylic acids, vinyl halides, allyl halides, vinyl lactams, heterocyclic compounds substituted with at least one group chosen from vinyl groups and allyl groups, N-vinylimidazoles, diallylamines, vinylidene chloride, carbon-based unsaturated compounds, acrylic acid derivatives quaternized with epichlorohydrin and methacrylic acid derivatives quaternized with epichlorohydrin.

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62. A process according to Claim 61, wherein said vinyl lactams are chosen from vinylpyrrolidone and vinylcaprolactam.

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63. A process according to Claim 61, wherein said heterocyclic compounds substituted with at least one group chosen from vinyl groups and allyl groups are chosen from vinylpyridine, vinyloxazoline and allylpyridine.

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64. A process according to Claim 61, wherein said carbon-based unsaturated compounds are chosen from styrene and isoprene.

65. A process according to Claim 50, wherein said at least one ethylenically unsaturated monomer (a) is chosen from N-vinylimidazoles, diallylamines, vinylidene

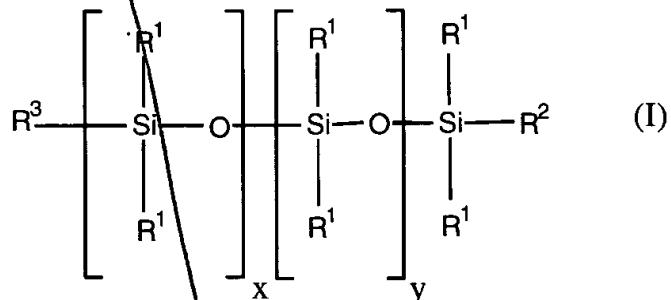
chloride, carbon-based unsaturated compounds, acrylic acid derivatives quaternized with epichlorohydrin and methacrylic acid derivatives quaternized with epichlorohydrin.

66. A process according to Claim 50, wherein said at least one ethylenically unsaturated monomers (a) is chosen from acrylic acid, methacrylic acid, ethacrylic acid, methyl acrylate, ethyl acrylate, propyl acrylate, n-butyl acrylate, isobutyl acrylate, t-butyl acrylate, 2-ethylhexyl acrylate, decyl acrylate, methyl methacrylate, ethyl methacrylate, propyl methacrylate, n-butyl methacrylate, isobutyl methacrylate, t-butyl methacrylate, 2-ethylhexyl methacrylate, decyl methacrylate, methyl ethacrylate, ethyl ethacrylate, propyl ethacrylate, n-butyl ethacrylate, isobutyl ethacrylate, t-butyl ethacrylate, 2-ethylhexyl ethacrylate, decyl ethacrylate, 2,3-hydroxypropyl acrylate, 2,3-dihydroxypropyl methacrylate, 2-dihydroxyethyl acrylate, hydroxypropyl acrylate, 2-hydroxyethyl methacrylate, 2-hydroxyethyl ethacrylate, 2-methoxyethyl acrylate, 2-ethoxyethyl methacrylate, 2-ethoxyethyl ethacrylate, hydroxypropyl methacrylate, glyceryl monoacrylate, glyceryl monomethacrylate, polyalkylene glycol (meth)acrylates, unsaturated sulphonic acids, acrylamide, methacrylamide, ethacrylamide, N,N-dimethylacrylamide, N-ethylacrylamide, N-ethylmethacrylamide, 1-vinyl-imidazole, N,N-dimethylaminoethyl (meth)acrylate, maleic acid, fumaric acid, maleic anhydride, monoesters of maleic anhydride, crotonic acid, itaconic acid, vinyl ethers, vinylformamide, vinylamine, vinylpyridine, vinylimidazole, vinylfuran, styrene, styryl sulphonate and allyl alcohol.

67. A process according to Claim 50, wherein said at least one ethylenically unsaturated monomer (a) further comprises at least one entity chosen from silicon atoms, fluorine atoms and thio groups.

68. A process according to Claim 50, wherein said at least one silicone derivative

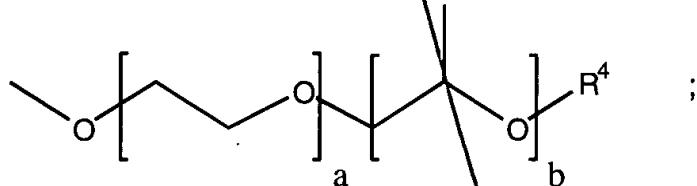
(b) is chosen from at least one derivative of formula I:



in which:

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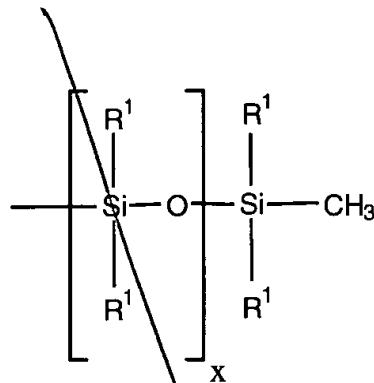
- x and y, which may be identical or different, are each chosen from integers wherein said integers are chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000;
- R² and R³, which may be identical or different, are each chosen from CH₃ and groups of formula:



- in which:

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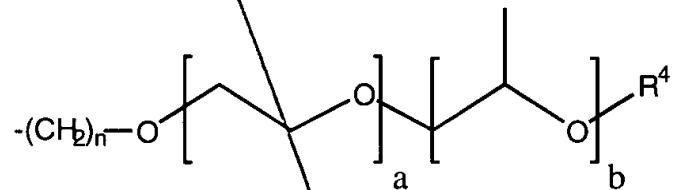
- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50;
- R⁴ is chosen from hydrogen, CH₃, groups of formula:



in which:

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1
cont*

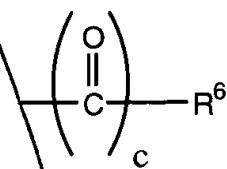
- x is an integer chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000; and
- R¹, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:



20 in which:

- n is an integer ranging from 1 to 6;
- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and
- R⁴ is defined as above; and

25 groups of formula:



5

in which:

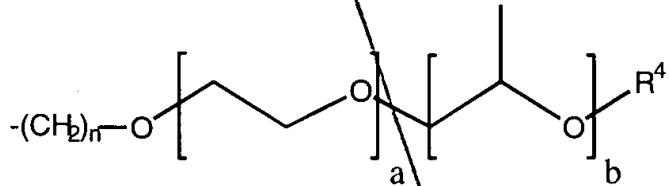
- R⁶ is chosen from a C₁ to C₄₀ group, optionally comprising at least one group chosen from amino groups, carboxyl groups and sulfonyl groups, and, if c is equal to zero, R₆ is chosen from an anion of an inorganic acid; and
- c is equal to 0 or 1; and

10

Sub B' Cont

- R¹, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:

15



in which:

- n is an integer ranging from 1 to 6;
- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and
- R⁴ is defined as above;

20

with the proviso that said at least one silicone derivative (b) comprises at least one oxyalkylene unit.

25

69. A process according to Claim 68, wherein said R¹, which may be identical or different, are each chosen from methyl groups, ethyl groups, propyl groups, butyl groups, isobutyl groups, pentyl groups, isopentyl groups, hexyl groups, octyl groups, decyl groups, dodecyl groups, octadecyl groups, cycloaliphatic groups, aromatic groups and groups comprising both aromatic and aliphatic groups.

5

70. A process according to Claim 69, wherein said cycloaliphatic groups are chosen from cyclohexyl groups.

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Cont X

71. A process according to Claim 69, wherein said aromatic groups are chosen from phenyl groups and naphthyl groups.

15

72. A process according to Claim 69, wherein said groups comprising both aromatic and aliphatic groups are chosen from benzyl groups, phenylethyl groups, tolyl groups and xylyl groups.

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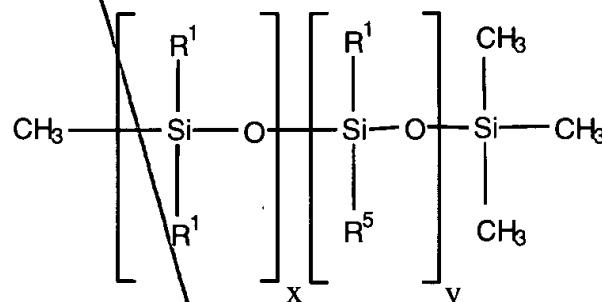
73. A process according to Claim 68, wherein said R⁴ is chosen from groups of formula -(CO)_c-R⁶, wherein c is equal to 1 and R⁶ is chosen from a group comprising from 1 to 40 carbon atoms, optionally comprising at least one group chosen from NH₂ groups, COOH groups and SO₃H groups, wherein said group comprising from 1 to 40 carbon atoms is chosen from an alkyl group, a cycloalkyl group and an aryl group.

25

74. A process according to Claim 68, wherein said R⁴ is chosen from groups of formula -(CO)_c-R⁶, wherein c is equal to zero and R⁶ is chosen from phosphates and sulphates.

75. A process according to Claim 50, wherein said at least one silicone derivative
 (b) is chosen from at least one derivative of formula:

5



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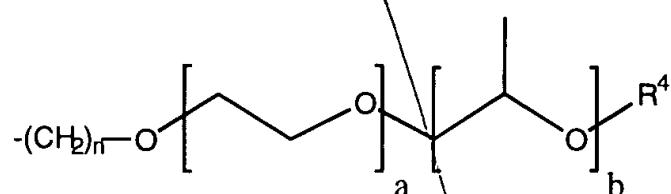
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Cont*

in which:

15

- x and y, which may be identical or different, are each chosen from integers wherein said integers are chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000;
- R1, which may be identical or different, are each chosen from C₁ to C₂₀ aliphatic hydrocarbons, C₃ to C₂₀ aromatic groups, C₃ to C₂₀ cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:

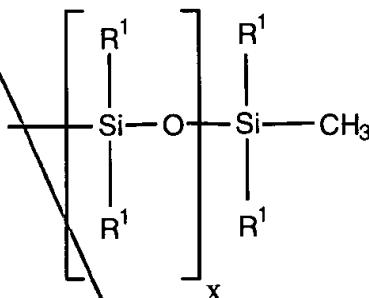
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- in which:

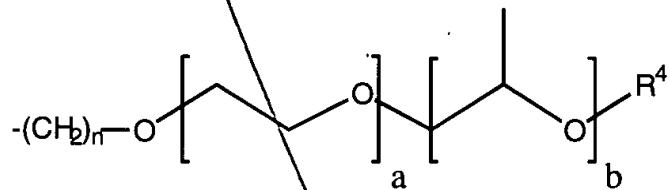
- n is an integer ranging from 1 to 6;
- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and
- R4 is chosen from hydrogen, CH₃, groups of formula:



in which:

- x is an integer chosen such that the number average molecular weight of said at least one silicone/acrylate copolymer ranges from 300 to 30,000; and

- R^1 , which may be identical or different, are each chosen from C_1 to C_{20} aliphatic hydrocarbons, C_3 to C_{20} aromatic groups, C_3 to C_{20} cycloaliphatic hydrocarbons, groups comprising both aromatic groups and aliphatic groups and groups of formula:



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in which:

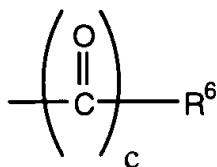
- n is an integer ranging from 1 to 6;

- a and b, which may be identical or different, are each chosen from integers ranging from 0 to 50; and

- R^4 is defined as above; and

20

groups of formula:



in which:

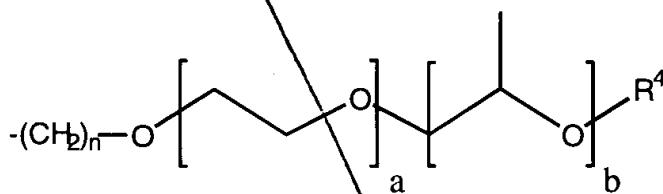
- R⁶ is chosen from a C₁ to C₄₀ group,
optionally comprising at least one group
chosen from amino groups, carboxyl groups
and sulfonyl groups, and, if c is equal to zero,

R₆ is chosen from an anion of an inorganic
acid; and

- c is equal to 0 or 1; and

- R⁵, which may be identical or different, are each chosen from groups of

formula:



in which:

- n is an integer ranging from 1 to 6;

- a and b, which may be identical or different, are each chosen
from integers ranging from 0 to 50; and

- R4 is defined as above;

with the proviso that said at least one silicone derivative (b) comprises at
least one oxyalkylene unit.

25

76. A process according to Claim 50, wherein said at least one

silicone derivative (b) is chosen from dimethicone copolyols and silicone surfactants.

77. A process according to Claim 50, wherein said at least one silicone derivative (b) is present in a proportion ranging from 0.1% to 50% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

78. A process according to Claim 77, wherein said at least one silicone derivative (b) is present in a proportion ranging from 1% to 20% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

79. A process according to Claim 50, wherein said at least one silicone/acrylate copolymer is chosen from water-soluble silicone/acrylate copolymers and silicone/acrylate copolymers having a dispersibility in water is such that, in a water/ethanol mixture dosed at 50/50 by volume, said copolymers are soluble in a proportion of greater than 0.1 g/l.

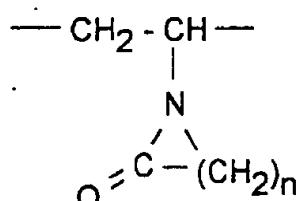
80. A process according to Claim 79, wherein said silicone/acrylate copolymers have a dispersibility in water such that said copolymers are soluble in a proportion of greater than 0.2 g/l.

81. A process according to Claim 50, wherein said at least one silicone/acrylate copolymer is present in a proportion ranging from 0.1% to 20% by weight relative to the total weight of said composition.

82. A process according to Claim 81, wherein said at least one silicone/acrylate copolymer is present in a proportion ranging from 0.5% to 10% by weight relative to the

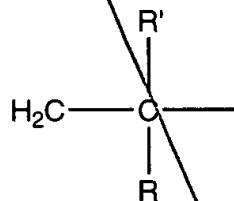
total weight of said composition.

83. A process according to Claim 50, wherein said at least one nonionic polymer comprising at least one vinyl lactam unit is chosen from at least one nonionic polymer comprising at least one unit of formula:



in which n is an integer chosen from 3, 4 and 5.

84. A process according to Claim 50, wherein said at least one nonionic polymer comprising at least one vinyl lactam unit is chosen from at least one copolymer which further comprises at least one unit of formula:



in which:

- R is chosen from an acyloxy group wherein the alkoxy group may optionally be substituted with at least one group, optionally substituted with at least one alkyl group,

wherein said at least one group is chosen from hydroxyl groups and aryl groups; and

- R' is chosen from a hydrogen atom and an alkyl group.

85. A process according to Claim 84, wherein said at least one group is chosen

5 from phenyl groups.

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cont*

86. A process according to Claim 50, wherein said at least one non-ionic polymer comprising at least one vinyl lactam unit is chosen from polyvinylpyrrolidones, polyvinylcaprolactams, polyvinylpyrrolidone/vinyl acetate copolymers and 10 polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers.

87. A process according to Claim 50, wherein said at least one non-ionic polymer comprising at least one vinyl lactam unit has a number-average molecular mass greater than about 5000.

15 88. A process according to Claim 87, wherein said number-average molecular mass ranges from about 10,000 to about 1,000,000.

20 89. A process according to Claim 88 wherein said number-average molecular mass ranges from about 10,000 to about 100,000.

90. A process according to Claim 50, wherein said at least one nonionic polymer comprising at least one vinyl lactam unit is present in a proportion ranging from 0.1% to 10% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

91. A process according to Claim 90, wherein said at least one nonionic polymer comprising at least one vinylactam unit is present in a proportion ranging from 0.2% to 5% by weight relative to the total weight of said at least one silicone/acrylate copolymer.

5 92. A process according to Claim 51, wherein said at least one cosmetically acceptable medium is chosen from water and cosmetically acceptable solvents.

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Cont*
10 93. A process according to Claim 92, wherein said cosmetically acceptable solvents are chosen from alcohols and mixtures comprising water and at least one solvent.

15 94. A process according to Claim 93, wherein said at least one solvent is chosen from C₁-C₄ alcohols.

20 95. A process according to Claim 94, wherein said C₁-C₄ alcohol is chosen from ethanol and isopropanol.

25 96. A process according to Claim 95, wherein said C₁-C₄ alcohol is chosen from ethanol.

97. A process according to Claim 50 further comprising at least one suitable additive chosen from anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, fragrances, screening agents, preserving agents, proteins, vitamins, polymers different from said at least one silicone/acrylate copolymer and different from said at least one nonionic polymer defined in Claim 50, plant oils, mineral oils and synthetic oils.

98. A process of making a cosmetic product comprising including in said product at least one composition comprising:

(a) at least one silicone/acrylate copolymer; and

(b) at least one nonionic polymer comprising at least one vinylactam unit, wherein said at least one silicone/acrylate copolymer is derived from radical-mediated polymerization of:

(i) at least one ethylenically unsaturated monomer (a); and

(ii) at least one silicone derivative (b) comprising at least one oxyalkylene group.

99. A process according to Claim 98, wherein said cosmetic product is a hair product.

100. A process according to Claim 99, wherein said hair product holds and shapes a hairstyle.

101. A process according to Claim 98, wherein said cosmetic product is a product for skin, a product for nails, a product for lips, a product for hair, a product for eyebrows or a product for eyelashes.

102. A product for skin, a product for nails, a product for lips, a product for hair, a product for eyebrows or a product for eyelashes comprising:

(a) at least one silicone/acrylate copolymer; and

(b) at least one nonionic polymer comprising at least one vinylactam unit, wherein said at least one silicone/acrylate copolymer is derived from radical-mediated

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polymerization of:

- (i) at least one ethylenically unsaturated monomer (a); and
- (ii) at least one silicone derivative (b) comprising at least one oxyalkylene group.

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